REMARKS

Claims 1-10 were pending at the time of examination. All of the independent claims have been amended, but no claims have been canceled or added. The applicant respectfully requests reconsideration based on the foregoing amendments and these remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 1-10 were rejected under 35 U.S.C § 103(a) as being unpatentable over U.S. Patent No. 6,320,988 to Yamaguchi et al. (hereinafter "Yamaguchi") in view of U.S. Patent No. 6,317,130 to Ishikawa et al. (hereinafter "Ishikawa"). The applicant respectfully traverses these rejections.

Claim 1 has been amended and recites, in part,

… wherein the amount of parallel movement is defined by an amount of movement of said cluster in each of the three-dimensions of the virtual three-dimensional data space;

and

calculate an amount of parallel movement of each said vertex by, for each vertex of said cluster, multiplying the amount of movement of said cluster in each of the three dimensions of the virtual three-dimensional space by a weight predefined for that vertex, and moving, according to these calculated amounts of parallel movement, said vertexes parallel to each other in each said frame display period

See, e.g., equation (1) at page 32 of Applicant's specification. This weighted parallel movement is different from rotation, which requires matrices. See the discussion n pages 22 and 34 of Applicant's specification.

For example, page 34, lines 17-23, of Applicant's specification states:

Since no matrix operations are carried out, the amount of processing decreases, thereby facilitating the real-time processing of fine transformations of a three-dimensional object. The present invention is particularly effective in the case where the three-dimensional object has a large number of vertexes.

With the clarification to the claims, it can be seen that neither Yamguchi nor Ishikawa disclose calculating an amount of parallel movement. Yamaguchi defines its calculated movement in terms of rotation of an arc, relative to a normal vector of the arc. See, e.g., col. 17, lines 60 et seq., which discusses "Basic Equations." See, also, cols. 19 and 20 which discuss the use of a "rotational matrix" for calculating movement of the vertices of a Yamguchi's skeleton model.

Ishikawa does disclose the use of a weighting coefficient. However, Ishikawa, too, calculates movement in terms of rotation (and rotation matrices), from which the subject matter recited in claim 1 is patentably distinct. See, e.g., col. 14, lines 14-29, which disclose:

> As shown in FIG. 5B, this storage content is rotation amount $Rx(\alpha)$, $Ry(\beta)$, $Rz(\gamma)$ data of each skeleton for causing a frame image at one scene of such action to execute a series of motions which are be given to each of polygons covering from the first pattern data up to n-th pattern data.

See, also, the discussion at page 30, lines 35-56. In particular, there it is disclosed that "W_{fd} is a weighting coefficient representing the strength of the damper." Col. 30, lines 44-45. The damper is "[a] surface-perpendicular damper for the node N_i." Col. 30, line 35.

It can be seen, then, that neither Yamguchi nor Ishikawa disclose defining "parallel movement" for a cluster of vertexes, as such term is explicitly recited in claim 1, nor do Yamaguchi or Ishikawa disclose using a weight, for each vertex in the cluster, as recited in claim 1 to calculate the amount of parallel movement of that vertex.

As a result, neither Yamaguchi nor Ishikawa, taken alone or in combination, disclose all of the element recited in the claim 1 subject matter.

The other independent claims, claims 4, 7, 8, 9 and 10, have been amended and recite subject matter parallel to the subject matter of claim 1. These claims are patentable over Yamaguchi and Ishikawa for reasons similar to the reasons claim 1 is distinguishable over Yamaguchi and Ishikawa.

Conclusion

The applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,

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